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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): M-15051-1D US

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on via EFS-Web on March 7, 2007

Signature _____

Typed or printed name Edward C. Kwok

Application Number	Filed
10/718,821	November 21, 2003

First Named Inventor: S. Bloebaum et al.

Art Unit	Examiner
2618	Haroon, Adeel

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☑ attorney or agent of record. Registration number 33,938.
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

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March 7, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Bloebaum, S.; Bharti, P.; Chung S.; Van Roy, B.; and Mann W.		
Assignee:	SiRF Technology Inc.		
Title:	Compensation for Frequency Adjustment in Mobile Communication-Positioning Device with Shared Oscillator		
Application No.:	10/718,821	Filing Date:	November 21, 2003
Examiner:	A. Haroon	Group Art Unit:	2618
Docket No.:	M-15051-1D US	Confirmation No:	1343

San Jose, California
March 7, 2007

Via EFS-Web
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

REASONS FOR REQUESTING PRE-APPEAL BRIEF REVIEW

Dear Sir:

The following reasons support Applicant's Request for Pre-Appeal Brief Review.

Claims 14-17, 20-21, 34-37 and 40-41 are pending.

In the Office Action of February 27, 2006, the Examiner rejected Claims 14-17, 20-21, 34-37 and 40-41 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,925,292 ("Syrjarinne"). With respect to independent Claims 14 and 34, the Examiner states:

> With respect to claim 14, Syrjarinne et al. disclose a method for determining an operating frequency of an oscillator based on a reference signal from a reliable time base in figure 2 (Abstract). Syrjarinne et al. disclose detecting a beginning time point of the reference signal received by the communication device and enabling a counter to count in accordance with a clock signal derived from an oscillator (Column 8, lines 16-21). Syrjarinne et al. also disclose detecting an ending point of the reference signal and disabling he counter to stop the counter (Column 8, lines 28-35). Syrjarinne et al. further disclose

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determining the frequency of the oscillator based on the count in the counter and an expected time that elapsed between the beginning time point and the ending time point (Column 8, lines 38-58).

* * *

With respect to claim 34, Syrjarinne et al. disclose an oscillator frequency determining apparatus in a communication device (Abstract). Syrjarinne et al. disclose an oscillator, element number 18, providing a periodic output signal (Column 8, lines 39-41). Syrjarinne et al. also disclose a receiver, element number 11, receiving a reference signal from a reliable time base (Column 8, lines 16-21). Syrjarinne et al. teach a detector detecting a beginning time point and an ending time point of the reference signal received by the communication device and a counter that begins counting the number of periods in the output signal of the oscillator in response to the detector detecting the beginning time point and stops counter in response to the detector detecting the ending time point of the reference signal (Column 8, lines 28-35). Syrjarinne et al. further disclose and arithmetic unit for determining the frequency of the oscillator based on the count in the counter and an expected time that elapsed between the beginning time point and the ending time point (Column 8, lines 38-58).

In the Amendment of July 5, 2006, Applicants respectfully pointed out to the Examiner that Syrjarinne's col. 8, lines 38-58 does not teach or suggest determining a frequency of an oscillator. For the Examiner's convenience, Applicants reproduced Syrjarinne's col. 8, lines 38-58 as follows:

... (The GPS local clock/oscillator 18 is typically a 50 MHz oscillator, giving a so-called jitter of only 6 m, determined from the formula $1/50\times10^{6}\times c$, where c is the speed of light). In a next step 38, the GPS time obtained as a by-product of the PVT solution is corrected for the difference in time between the instant at which the PVT solution was provided and the instant at which the trigger arrived in the GPS module, so as to obtain the GPS time corresponding to the trigger, thus relating a frame edge instant of arrival (for a frame with a known frame number) to GPS time. In a next (optional) step 39, the above steps are repeated periodically, so as to obtain values for GPS time for several sequential frame edges, and the base station or the GPS receiver can then estimate the clock drift for the base station clock (not shown) used in timing frame transmissions. In next step 40, the GPS module sends the GPS time for the instant it

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received the trigger to the cellular module (along with, optionally, a corresponding position determination, as described below), and the cellular sends the information to the base station in an uplink frame.

(Syrjarinne, at col. 8, lines 38-58)

Thus, Syrjarinne discloses using the counter to find the GPS time corresponding to a frame edge, and repeating the method to obtain the GPS times for several frame edges to estimate the clock drift. Syrjarinne does not disclose or suggest a frequency determination for an oscillator. In contrast, as recited in Applicants' Claims 14 and 34, the present invention determines a frequency of an oscillator from the count in the counter and the expected time interval (i.e., no determination of GPS times is recited):

> 14. In communication device, a method for determining an operating frequency of an oscillator based on a reference signal from a reliable time base, comprising:
>
> detecting a beginning time point of the reference signal received by the communication device;
>
> upon detection of the beginning time point of the reference signal, enabling a counter to count in accordance with a clock signal derived from the oscillator;
>
> detecting an ending time point of the reference signal received by the communication device;
>
> upon detecting the ending time point of the reference signal, disabling the counter to stop the counter from further counting; and
>
> <u>determining the frequency of the oscillator based on the count in the counter and an expected time that elapsed between the beginning time point and the ending time point</u>.
>
> * * *
>
> 34. An oscillator frequency determining apparatus in a communication device, comprising:
>
> an oscillator providing a periodic output signal;

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> a receiver receiving a reference signal from a reliable time base;
>
> a detector detecting a beginning time point and an ending time point of the reference signal received by the communication device;
>
> a counter that begins counting the number of periods in the output signal of the oscillator in response to the detector detecting the beginning time point and stops counter in response to the detector detecting the ending time point of the reference signal; and
>
> arithmetic unit for <u>determining the frequency of the oscillator based on the count in the counter and an expected time that elapsed between the beginning time point and the ending time point</u>.

(emphasis added)

Therefore, Applicants respectfully submit that Syrjarinne's col. 8, lines 38-58 neither discloses nor suggests Applicants' Claims 14 and 34, each reciting determining the frequency of an oscillator.

In response to Applicants' arguments, the Examiner states, in the Final Office Action of September 8, 2007:

> ... Syrjarinne et al. disclose element "GPS local clock/oscillator 18", which shows that element number 18 is both a GPS local clock and oscillator. Since frequency is the just the inverse of time, time determination and frequency determination are technically equivalent.

Applicants respectfully submit that the Examiner is in error. Syrjarinne simply does not disclose or suggest determination of the frequency of an oscillator. The Examiner's argument has no merits. Claims 14 and 34 recite determining the frequency of an oscillator, which is an attribute of the oscillator. Syrjarinne teaches, however, determining GPS time, which is an attribute of the entire GPS system of satellites. The frequency of an oscillator has no inverse relationship with the GPS time of the GPS system. Thus, Applicants submit that

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Claims 14 and 34 and their respective dependent Claims 15-17, 20-21, 35-37 and 40-41, are each allowable over Syrjarinne. The Examiner's rejection should therefore be reversed.

Thus, all pending claims (i.e., Claims 14-17, 20-21, 34-37 and 40-41) are allowable. If the Board or the Examiner has any question regarding the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicant at (408)-392-9250.

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Certificate of Transmission: I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office (USPTO) via the USPTO's electronic filing system on March 7, 2007.

Attorney for Applicant(s) — Date of Signature: 3/7/2007

Respectfully submitted,

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